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动物分类学报

THREE NEW SPECIES OF NOTHOPODINAE (ACARI, ERIOPHYIDAE) FROM CHINA

OU Shan-Sheng[1], ZHU Hui[2], WEI Sui-Gai[2*]
1. *Guangxi Agricultural Technology & Vocation College, Nanning, Guangxi 530007, China*
2. *College of Agriculture, Guangxi University, Nanning, Guangxi 530005, China*

Abstract Three new species, one in Colopodacini, *Colopodacus virens* sp. nov. infesting *Ficus virens* Corner. (Moraceae), and two in Nothopodini, *Nothopoda chinense* sp. nov. infesting *Loropetalum chinense* Oliver (Hamamelidaceae) and *Disella planicaule* sp. nov. infesting *Tetrastigma planicaule* Gagnep. (Vitaceae), are described and illustrated. All mites are vagrant on the undersurfaces of host leaves.

Key words Eriophyoid mite, Colopodacini, Nothopodini, new species, China.

The subfamily Nothopodinae Keifer, 1956 is charactered by prodorsal shield without anterior seta, gnathosoma small, tibiae reduced or fused completely with tarsi. To date, the subfamily holds 18 genera, 8 in Colopodacini and 10 in Nothopodini, and 13 of them have been recorded in China (Kuang, 1995; Wei & Qin, 2002; Amrine *et al*., 2003; Huang & Wang, 2003; Chen *et al*., 2004; Kuang *et al*., 2004; Huang & Cheng, 2005; Li & Wei, 2006; Wang *et al*., 2007; Wei *et al*., 2007). Three new species, in the subfamily collected from Guangxi Zhuang Autonomous Region, China, are reported in this paper. Measurements are given in micrometers (μm). Type specimens are deposited in the College of Agriculture, Guangxi University, Nanning, China.

Colopodacus virens **sp. nov.** (Figs. 1-6)

Female. Body fusiform, 181 long, 68 wide, 78 thick. Gnathosoma: projected obliquely downward, 31 long. Prodorsal shield: without frontal lobe, 38 long, 62 wide; median and submedian lines incomplete, admedian lines complete; median and admedian lines forming 4 rows of cells by 3 transverse lines and 11 cells on the anterior shield; the lateral sides of the shield with many short lines. Scapular tubercles 25 apart, set ahead of rear margin; scapular setae (*sc*) 6 long, directed upward and mediad. Coxae. With 3 pairs of setae, sternal line present, coxal area smooth. Anterolateral setae on coxisternum I (1*b*) 2 long, proximal setae on coxisternum I (1*a*) 10 long, proximal setae on coxisternum II (2*a*) 12 long. Legs. Tibia fused with tarsus. Leg I 20.5 long, femur 7 long, basiventral femoral setae (*bv*) 7 long; genu 4.5 long, antaxial genual setae (*l″*) 23 long; tarsus 7 long; tarsal empodium entire, 5-rayed, tarsal solenidion knobbed; leg II 18 long, femur 6 long, basiventral femoral setae (*bv*) 15 long; genu 4 long, antaxial genual setae (*l″*) 8 long; tarsus 6 long; tarsal empodium entire, 5-rayed, tarsal solenidion knobbed. Opisthosoma: dorsal annuli 46, smooth; ventral annuli 47, approximatively equal to the dorsal annuli in width, with elongated microtubercles; setae *c*2 15 long, on annulus 7; setae *d* 45 long, on annulus 17; setae *e* 6 long, on annulus 30; setae *f* 15 long, on annulus 7th from rear; setae *h*1 absent. Female genitalia: 20 long, 21 wide, coverflap smooth, proximal setae on coxisternum III (3*a*) 4 long.

Male. Body 150 long, 60 wide; genitalia 19 wide, proximal setae on coxisternum III (3*a*) 4 long.

Holotype ♀, paratypes 12 ♀♀, 2 ♂♂, from *Ficus virens* Corner. (Moraceae), Guilin City (25°12′N, 110°12′E), Guangxi, 23 May 2007, collected by OU Shan-Sheng, ZHU Hui and WANG Guo-Quan.

Relation to host. The mites are vagrant on the undersurfaces of the leaves, no visible damage.

Note. The new species is close to *Colopodacus bangalensis* Mohanasundaram, 1981, but can be differentiated by prodorsal shield with a row of cells in the anterior margin and tarsal solenidion knobbed.

Etymology. The specific designation is derived from the specific name of the type host plant.

Nothopoda chinense **sp. nov.** (Figs. 7-12)

Female. Body fusiform, 125 long, 50 wide, 50 thick, light yellow in color. Gnathosoma: projected obliquely downward, 20 long. Prodorsal shield with small frontal lobe, 33 long, 40 wide; median line incomplete, admedian and submedian lines complete; median and admedian lines forming 3 rows of cells by 2 transverse lines; posterolateral margins of the shield with 6 arc discontinuous lines. Scapular tubercles 25 apart, set

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* Corresponding author, E-mail: weisuigai@tom.com

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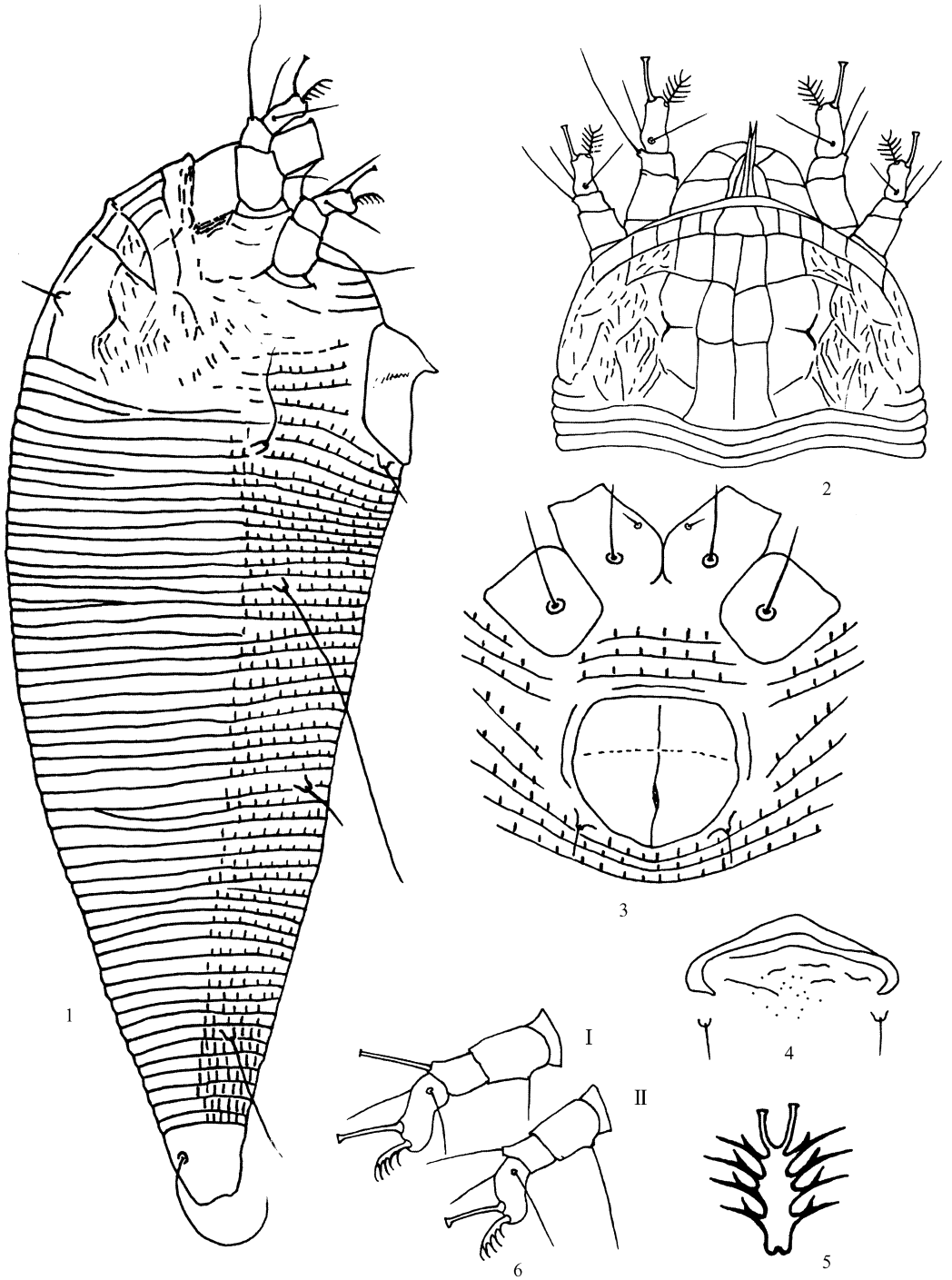
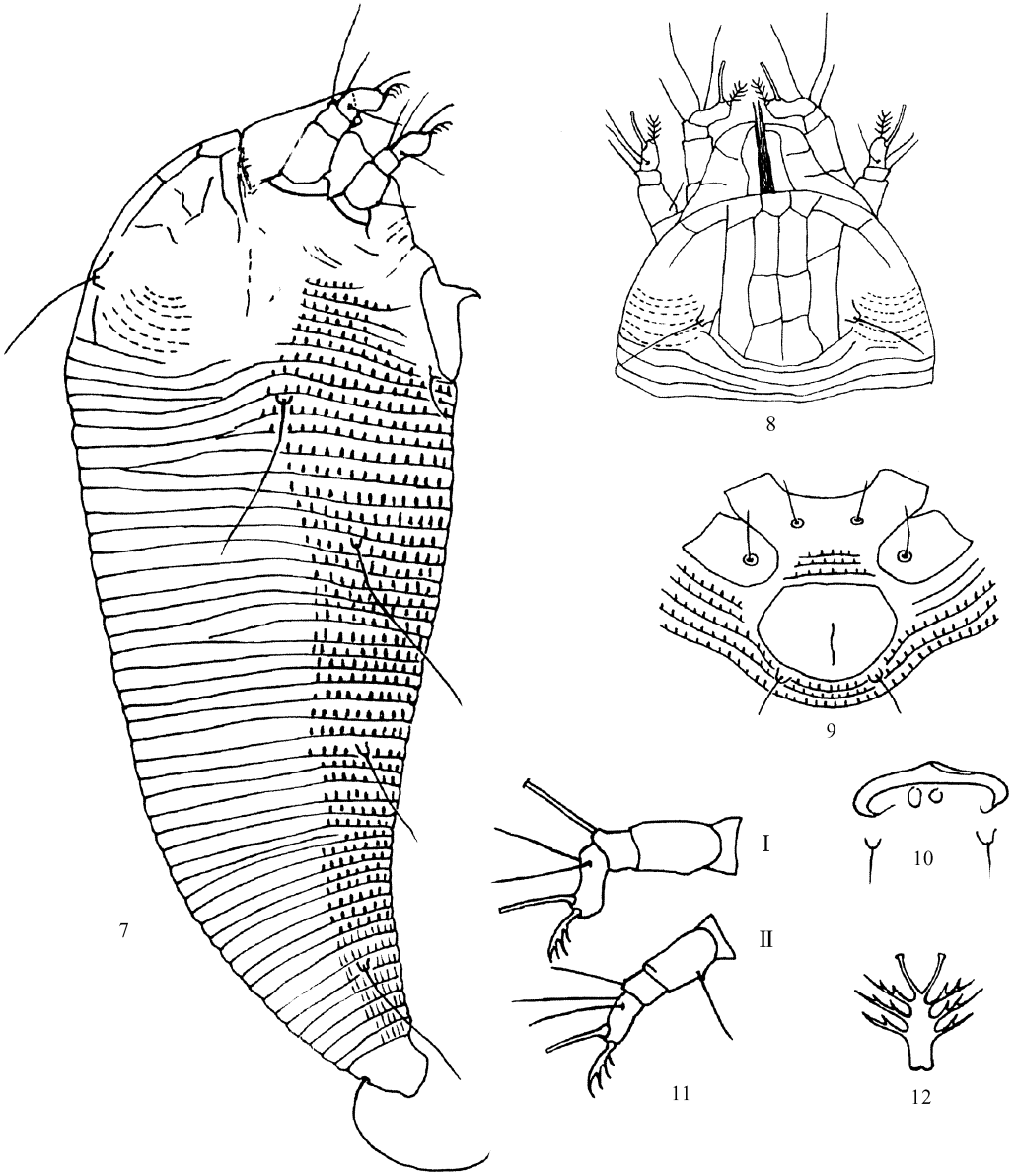


Figs 1-6 *Colopodaaus virens* sp. nov. 1. Lateral view of female. 2. Dorsal view of anterior of female. 3. Coxal-genital area of female. 4. Male genitalia. 5. Empodium. 6. Leg Ⅰ, leg Ⅱ.

ahead of rear margin; scapular setae (*sc*) 16 long, directed posterolaterally. Coxae: smooth, coxae Ⅰ fused, without sternal line; anterolateral setae on coxisternum Ⅰ (1*b*) absent, proximal setae on coxisternum Ⅰ (1*a*) 6 long, proximal setae on coxisternum Ⅱ (2*a*) 8 long. Legs: tibia fused with tarsus. Leg Ⅰ 19.5 long, femur 9 long, basiventral femoral setae (*bv*) absent; genu 3 long, antaxial genual setae (*l*″) 21 long; tarsus 5.5 long; tarsal empodium entire, 4-rayed, tarsal solenidion unknobbed; leg Ⅱ 17 long, femur 7 long, basiventral femoral setae (*bv*) 7 long genu 3 long, antaxial genual setae (*l*″) 7 long; tarsus 5 long; tarsal empodium entire, 4-rayed, tarsal solenidion unknobbed. Opisthosoma: dorsal annuli 40, smooth; ventral annuli 46, with elongated microtubercles; setae *c*2 18 long, on annulus 10; setae *d* 19 long, on annulus 17; setae *e* 9 long, on annulus 30; setae *f* 15 long, on 6th annulus from rear; setae *h*1

absent. Female genitalia. Coverflap smooth, 17 long, 21 wide, proximal setae on coxisternum III (3*a*) 4 long.

Male. Body 118 long, 41 wide; genitalia 13 wide, proximal setae on coxisternum III (3*a*) 6 long.



Figs 7-12. *Nothopoda chinense* sp. nov. 7. Lateral view of female. 8. Dorsal view of anterior of female. 9. Coxal-genital area of female. 10. Male genitalia. 11. Leg I, leg II. 12. Empodium.

Holotype ♀, paratypes 15 ♀♀, 3 ♂♂, from *Loropetalum chinense* Oliver (Hamamelidaceae), Guilin City (25°12′N, 110°12′E), Guangxi, 23 May 2007, collected by OU Shan-Sheng, ZHU Hui and WANG Guo-Quan.

Relation to host. The mites are vagrant on the undersurfaces of the leaves, no visible damage.

The new species is similar to *Nothopoda wendlandiae* Wei & Qin, 2002, but can be differentiated by the coxal area smooth; posterolateral margins of the prodorsal shield with 6 arc discontinuous lines; the empodium 4-rayed.

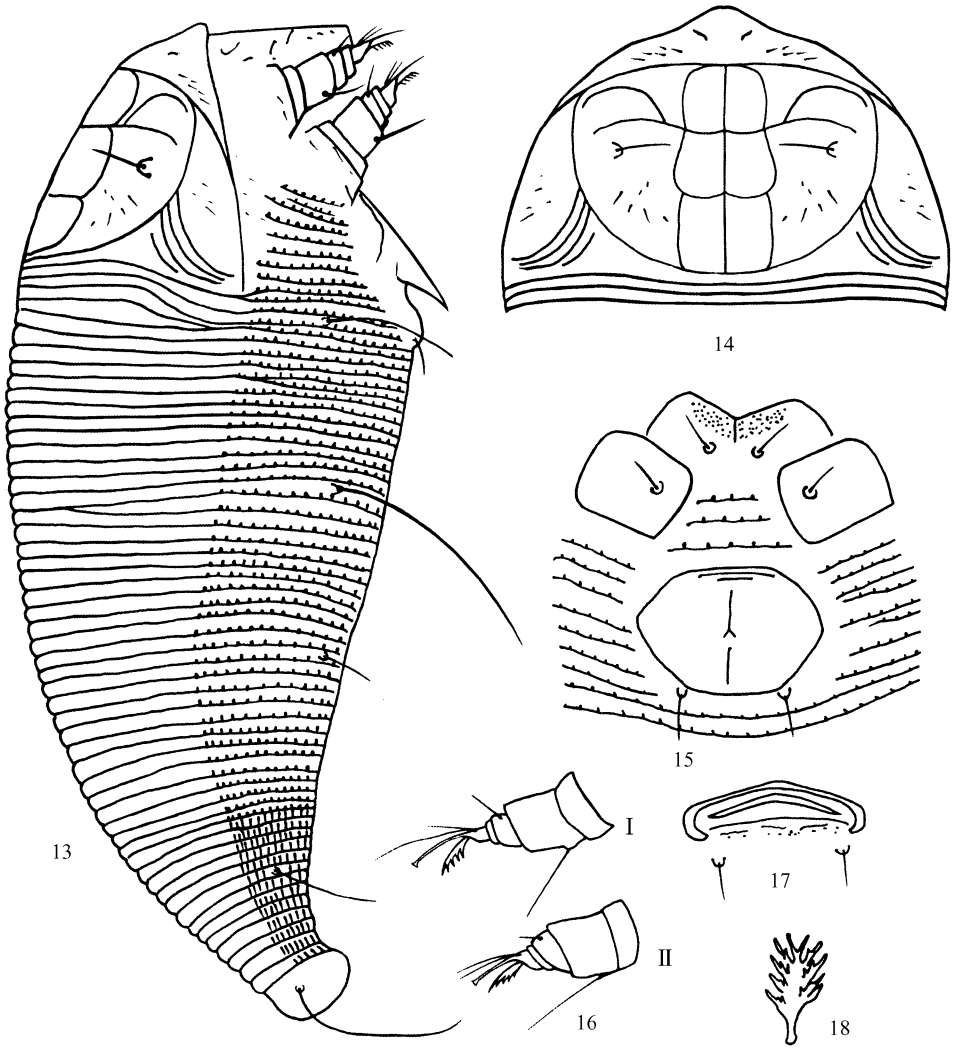
Etymology. The specific designation is derived from the specific name of the type host plant.

Disella planicaule **sp. nov.** (Figs. 13-18)

Female. Body fusiform, 150 long, 60 wide, 75 thick, light yellow in color. Gnathosoma. Projected obliquely downward, 23 long. Prodorsal shield 35 long, 45 wide, with small frontal lobe; median and admedian lines incomplete, forming 3 rows of cells by 2 transvers lines. Scapular tubercles 35 apart, ahead of rear margin; scapular setae (*sc*) 10 long, projected upward and mediad. Coxae. With sternal line present, coxal area with granules; anterolateral setae on coxisternum I (1*b*) absent, proximal setae on coxisternum I (1*a*) 5 long, proximal setae on coxisternum II (2*a*) 4 long. Legs: leg I 17 long, femur 7 long, basiventral femoral setae (*bv*) 11 long; genu 3 long, antaxial genual setae

(l'') 6 long; tibiae 1 long; paraxial tibial setae (l') absent; tarsus 4 long; tarsal empodium entire, 5-rayed, tarsal solenidion knobbed; leg II 15 long, femur 6 long, basiventral femoral setae (bv) 10 long; genu 3 long, antaxial genual setae (l'') 3.5 long; tibiae 1 long; tarsus 3 long; tarsal empodium entire, 5-rayed, tarsal solenidion knobbed. Opisthosoma: dorsum with short median ridge, dorsal annuli 46, smooth; ventral annuli 57, with elongated microtubercles; setae $c2$ 20 long, on annulus 12; setae d 50 long, on annulus 27; setae e 10 long, on annulus 39; setae f 20 long, on annulus 8th from rear; setae $h1$ absent. Female genitalia: Coverflap smooth, 18 long, 28 wide, proximal setae on coxisternum III ($3a$) 7 long.

Male. Body 130 long, 50 wide; genitalia 24 wide, proximal setae on coxisternum III ($3a$) 6 long.



Figs 13-18. *Disella planicaule* sp. nov. 13. Lateral view of female. 14. Prodorsal shield. 15. Coxal-genital area of female. 16 leg I, leg II. 17. Male genitalia. 18. Empodium.

Holotype ♀, paratypes 9 ♀♀, 3 ♂♂, from *Tetrastigma planicaule* Gagnep. (Vitaceae). Guilin City (25°12′N, 110°12′E), Guangxi, 23 May 2007, collected by OU Shan-Sheng, ZHU Hui and WANG Guo-Quan.

Relation to host. The mites are vagrant on the undersurfaces of the leaves, no visible damage.

The new species is close to *Disella cylindrokeduphae* Wei, Xie & Chen, 2006, but can be differentiated by the empodium 5-rayed; the coxae I with granules; the dorsal opisthosomal annuli after median ridge evenly round and the female genital coverflap smooth.

Etymology. The specific designation is derived from the specific name of the type host plant.

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中国伪足瘿螨亚科三新种记述 (蜱螨亚纲, 瘿螨科)

欧善生[1] 朱 辉[2] 韦绥概[2*]
1. 广西农业职业技术学院 南宁 530007
2. 广西大学农学院 南宁 530005

摘 要 记述了伪足瘿螨亚科 Nothopodinae 3 新种: 黄葛树同足瘿螨 *Colopodacus virens* sp. nov., 继木伪足瘿螨 *Nothopoda chinense* sp. nov., 扁担藤分位瘿螨 *Disella planicaule* sp. nov.。本文所用量度单位均为μm。模式标本保存在广西大学农学院。

1 黄葛树同足瘿螨, 新种 Colopodacus virens **sp. nov.** (图 1~6)

新种与 *Colopodacus bangalensis* Mohanasundaram, 1981 近似, 但新种以背盾板图案前缘有 1 排小室, 爪具端球等与后者区别。

正模 ♀, 副模: 12 ♀♀, 2 ♂♂, 叶背自由生活。寄主: 黄葛树 *Ficus virens* Corner. (桑科 Moraceae)。欧善生、朱辉和王国全, 2007-05-23, 广西桂林市。

2 继木伪足瘿螨, 新种 Nothopoda chinense **sp. nov.** (图 7~12)

新种与 *Nothopoda wendlandiae* Wei & Qin 2002 近似, 但新种以足基节光滑, 背盾板两后角具 6 条弧线, 羽状爪 4 支与后者区别。

正模 ♀, 副模: 15 ♀♀, 3 ♂♂, 叶背营自由生活。寄主: 继木 *Loropetalum chinense* Oliver (金缕梅科 Hamamelidaceae)。欧善生、朱辉和王国全, 2007-05-23, 广西桂林市。

3 扁担藤分位瘿螨, 新种 Disella planicaule **sp. nov.** (图 13~18)

新种与 *Disella cylindrokeduphae* Wei, Xie & Chen 2006 近似, 但新种以羽状爪 5 支, 基节 I 有刻点, 大体背中脊后背环为弓形, 生殖盖片光滑与后者相区别。

正模 ♀, 副模: 9 ♀♀, 3 ♂♂, 叶背营自由生活。寄主: 扁担藤 *Tetrastigma planicaule* Gagnep. (葡萄科 Vitaceae)。欧善生、朱辉和王国全, 2007-05-23, 广西桂林市。

关键词 蜱螨亚纲, 瘿螨科, 伪足瘿螨亚科, 新种, 中国.
中图分类号 Q959.226

* 通讯作者.